Doing Our Part to Create a Better Future for All...

Core Environmental Policy

The Mitsubishi Electric Group promotes sustainable development and is committed to protecting and restoring the global environment through technology, through all its business activities, and through the actions of its employees.

Environmental Vision 2021

Making Positive Contributions to the Earth and its People through Technology and Action

Preventing Global Warming

- Reduce CO_2 emissions from product usage by 30%
- Reduce total CO_2 emissions from production by 30%
- Aim to reduce CO_2 emissions from power generation

Creating a Recycling-Based Society

- Reduce, reuse and recycle "3Rs" products reduce resources used by 30%
- Zero emissions from manufacturing reducing the direct landfill of waste to zero

Ensuring Harmony with Nature
Fostering Environmental Awareness

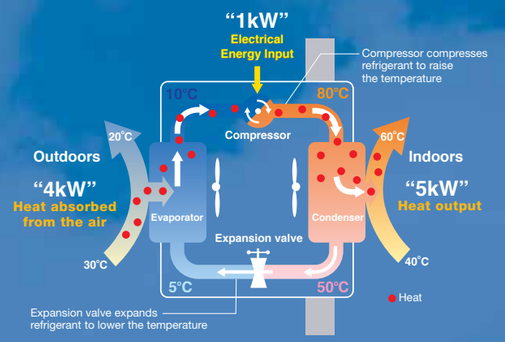
Mitsubishi Electric reflects the essence of this policy and vision in all aspects of its air conditioner business as well.

Preventing Global Warming

Heat pump technology inspires Mitsubishi Electric to design air conditioners that harmonize comfort and ecology.

Heat Pump Principle (When Heating) <Case of COP 5.0>

Refrigerant and Heat Circulation



Output energy is quintuple of input energy

"1kW" Electrical Energy Input
+
"4kW" Heat Absorbed from the air
=
"5kW" Heat Output

Mitsubishi Electric develops technologies to balance comfort and ecology, achieving greater efficiency in heat pump operation.

	Comfort	Ecology
1. Inverter	Faster start-up and more stable indoor temperature than non-inverter units.	Fewer On/Off operations than with non-inverter, saving energy.
2. i-see Sensor	Monitoring the temperature gaps between the floor and the set temperature to prevent deficient warming.	Optimum control of the airflow to prevent excessive compressor operation for more efficient heating operation.
3. Flash Injection	Achieves high heating capacity even at low temperatures, plus faster start-up compared to conventional inverters.	Expands the region covered by heat pump heating system.

Creating a Recycling-Based Society

1. **All models are designed for RoHS and WEEE compliance.***
2. **Mitsubishi Electric develops downsizing technology to reduce materials use.**
   - **PUHZ-RP200/250YHA2: Volume reduction approx. 60% compared to PUHZ-RP200/250YHA**
   - **MUZ-GC25VA & MUZ-HC25/25VA: Volume reduction approx. 25% compared to MUZ-GA25 & MUZ-HA25/35VA**

* WEEE and RoHS directives: The Waste Electrical and Electronic Equipment (WEEE) Directive is a recycling directive for this type of equipment, while the Restrictions of Hazardous Substances (RoHS) Directive is an EU directive restricting the use of six specified substances in electronic and electrical devices. In the EU, it is no longer possible (from July 2006) to sell products containing any of the six substances.

Ensuring Harmony with Nature/ Fostering Environmental Awareness

In striving to heighten the eco-awareness of its employees, Mitsubishi Electric provides education in RoHS, WEEE and other environmental regulations, along with environmental education targeting second and third-year workers.

MSH-G SERIES

20 - 35 EER A | 20 - 35 COP A

Indoor Unit

MSC-GE20/25/35VB

MSH-GE50VB
MSH-GA60VB
MSH-GD80VB

Outdoor Unit

MUH-GA20/25/35VB
MUH-GE50VB

MUH-GE60VB
MUH-GD80VB

Remote Controller

Econo Cool | Self Clean | AUTO VANE | Air Cleaning (Optional) | Catechin | SWING | 50 - 80 SWING | AUTO | 50 - 80 WIDE/LONG | Timer | Auto Restart | Flare connection | Self Diagnosis

Type				Fixed - Speed					
Indoor Unit				MSC-GE20VB	MSC-GE25VB	MSC-GE35VB	MSH-GE50VB	MSH-GA60VB	MSH-GD80VB
Outdoor Unit				MUH-GA20VB	MUH-GA25VB	MUH-GA35VB	MUH-GE50VB	MUH-GA60VB	MUH-GD80VB
Power Supply	Source			Indoor / outdoor separate power supply					
	Outdoor (V/Phase/Hz)			230 / Single / 50					
	Indoor (V/Phase/Hz)			230 / Single / 50					
Cooling	Capacity	Rated	kW	2.3	2.65	3.5	5.0	6.3	8.0
		Min - Max	kW	–	–	–	–	–	–
	Total Input	Rated	kW	0.715	0.820	1.090	1.780	2.410	3.320
	EER			3.22	3.23	3.21	2.81	2.61	2.41
	EEL Rank			A	A	A	C	D	E
	SPL	Indoor Unit [Lo-Mid-Hi]	dB(A)	25 - 31 - 36	25 - 31 - 36	26 - 33 - 40	34 - 38 - 42	37 - 41 - 45	37 - 42 - 47
		Outdoor Unit [Rated]	dB(A)	47	49	49	52	53	55
	Air Volume	Indoor Unit [Lo-Mid-Hi]	m^3/min	4.6 - 6.2 - 7.9	5.1 - 6.4 - 7.9	5.4 - 7.4 - 9.7	8.6 - 10.7 - 12.8	9.6 - 11.2 - 12.8	11.4 - 13.7 - 15.9
		Outdoor Unit [Rated]	m^3/min	30.0	31.7	31.7	31.7	46.0	49.0
Heating	Capacity	Rated	kW	2.5	3.0	3.7	5.2	7.2	9.4
		Min - Max	kW	–	–	–	–	–	–
	Total Input	Rated	kW	0.690	0.820	1.020	1.610	2.480	3.580
	COP			3.62	3.66	3.63	3.23	2.90	2.63
	EEL Rank			A	A	A	C	D	E
	SPL	Indoor Unit [Lo-Mid-Hi]	dB(A)	25 - 31 - 36	25 - 32 - 39	26 - 33 - 39	34 - 38 - 42	34 - 40 - 45	37 - 42 - 47
		Outdoor Unit [Rated]	dB(A)	47	49	49	52	53	55
	Air Volume	Indoor Unit [Lo-Mid-Hi]	m^3/min	5.7 - 7.0 - 8.5	5.7 - 7.6 - 9.8	6.6 - 8.3 - 10.1	8.6 - 10.7 - 12.8	8.6 - 10.7 - 12.8	12.1 - 13.9 - 15.9
		Outdoor Unit [Rated]	m^3/min	30.0	31.7	31.7	31.7	46.0	49.0
Operating Current (max)				5.7	5.8	7.7	11.5	15.5	20.5
Indoor Unit	Input	Rated	kW	0.035	0.035	0.040	0.060	0.060	0.069
	Operating Current (max)		A	0.5	0.5	0.5	0.5	0.5	0.5
	Dimensions	H x W x D	mm	278 - 815 - 244	278 - 815 - 244	278 - 815 - 244	325 - 1100 - 258	325 - 1100 - 258	325 - 1100 - 258
	Weight		kg	9	9	10	16	16	16
	Breaker Size		A	10	10	10	10	10	10
Outdoor Unit	Dimensions	H x W x D	mm	550 - 800 - 285	550 - 800 - 285	550 - 800 - 285	550 - 800 - 285	850 - 840 - 330	850 - 840 - 330
	Weight		kg	29	34	39	40	74	77
	Operating Current (max)		A	5.2	5.3	7.2	11.0	15.0	20.0
	Breaker Size		A	10	10	10	15	25	25
Ext. Piping	Diameter	Liquid / Gas	mm	6.35 / 9.52	6.35 / 9.52	6.35 / 9.52	6.35 / 12.7	6.35 / 15.88	9.52 / 15.88
	Max. Length	Out-In	m	20	20	25	25	25	30
	Max. Height	Out-In	m	10	10	10	10	10	15
Guaranteed Operating Range [Outdoor]		Cooling	℃	+21 ~ +43	+21 ~ +43	+21 ~ +43	+21 ~ +43	+21 ~ +43	+21 ~ +43
		Heating	℃	-10 ~ +24	-10 ~ +24	-10 ~ +24	-10 ~ +24	-10 ~ +24	-10 ~ +24

MS-G SERIES

20 / 25 EER A

Indoor Unit

MSC-GE20/25/35VB

MS-GE50VB
MS-GA60VB
MS-GD80VB

Outdoor Unit

MU-GA20/25/35VB
MU-GE50VB

MU-GA60VB
MU-GD80VB

Remote Controller

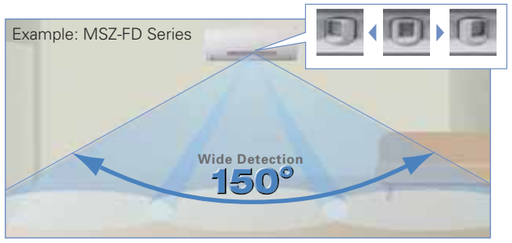
Econo Cool | Self Clean | AUTO VANE | Air Cleaning (Optional) | Catechin | SWING | 50 - 80 SWING | AUTO | 50 - 80 WIDE/LONG | Timer | Auto Restart | Flare connection | Self Diagnosis

Type				Fixed - Speed					
Indoor Unit				MSC-GE20VB	MSC-GE25VB	MSC-GE35VB	MS-GE50VB	MS-GA60VB	MS-GD80VB
Outdoor Unit				MU-GA20VB	MU-GA25VB	MU-GA35VB	MU-GE50VB	MU-GA60VB	MU-GD80VB
Power Supply	Source			Indoor / outdoor separate power supply					
	Outdoor (V/Phase/Hz)			230 / Single / 50					
	Indoor (V/Phase/Hz)			230 / Single / 50					
Cooling	Capacity	Rated	kW	2.3	2.5	3.45	5.0	6.5	8.0
		Min - Max	kW	–	–	–	–	–	–
	Total Input	Rated	kW	0.715	0.775	1.120	1.810	2.480	3.320
	EER			3.22	3.23	3.08	2.76	2.62	2.41
	EEL Rank			A	A	B	D	D	E
	SPL	Indoor Unit [Lo-Mid-Hi]	dB(A)	25 - 31 - 36	25 - 31 - 36	26 - 33 - 40	34 - 38 - 42	37 - 41 - 45	37 - 42 - 47
		Outdoor Unit [Rated]	dB(A)	45	45	49	52	53	55
	Air Volume	Indoor Unit [Lo-Mid-Hi]	m^3/min	4.6 - 6.2 - 7.9	5.1 - 6.4 - 7.9	5.4 - 7.4 - 9.7	8.6 - 10.7 - 12.8	9.6 - 11.2 - 12.8	11.4 - 13.7 - 15.9
		Outdoor Unit [Rated]	m^3/min	30.0	30.0	31.7	31.7	38.7	49.0
Heating	Capacity	Rated	kW	–	–	–	–	–	–
		Min - Max	kW	–	–	–	–	–	–
	Total Input	Rated	kW	–	–	–	–	–	–
	COP			–	–	–	–	–	–
	EEL Rank			–	–	–	–	–	–
	SPL	Indoor Unit	dB(A)	–	–	–	–	–	–
		Outdoor Unit	dB(A)	–	–	–	–	–	–
	Air Volume	Indoor Unit	m^3/min	–	–	–	–	–	–
		Outdoor Unit	m^3/min	–	–	–	–	–	–
Operating Current (max)				5.7	5.6	8.3	12.0	16.0	20.5
Indoor Unit	Input	Rated	kW	0.035	0.035	0.040	0.060	0.060	0.069
	Operating Current (max)		A	0.5	0.5	0.5	0.5	0.5	0.5
	Dimensions	H x W x D	mm	278 - 815 - 244	278 - 815 - 244	278 - 815 - 244	325 - 1100 - 258	325 - 1100 - 258	325 - 1100 - 258
	Weight		kg	9	9	10	16	16	16
	Breaker Size		A	10	10	10	10	10	10
Outdoor Unit	Dimensions	H x W x D	mm	550 - 800 - 285	550 - 800 - 285	550 - 800 - 285	550 - 800 - 285	605 - 850 - 290	850 - 840 - 330
	Weight		kg	27	27	34	38	60	75
	Operating Current (max)		A	5.2	5.1	7.8	11.5	15.5	20.0
	Breaker Size		A	10	10	10	15	25	25
Ext. Piping	Diameter	Liquid / Gas	mm	6.35 / 9.52	6.35 / 9.52	6.35 / 9.52	6.35 / 12.7	6.35 / 15.88	9.52 / 15.88
	Max. Length	Out-In	m	20	20	25	25	25	30
	Max. Height	Out-In	m	10	10	10	10	10	15
Guaranteed Operating Range [Outdoor]		Cooling	℃	+21 ~ +43	+21 ~ +43	+21 ~ +43	+21 ~ +43	+21 ~ +43	+21 ~ +43

FUNCTIONS

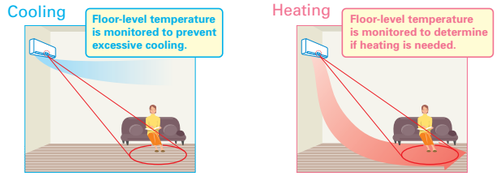
ENERGY-SAVING

i-see Sensor Felt Temperature Control



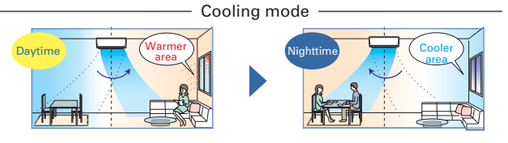
The "i-see Sensor" sweeps from side-to-side automatically monitoring the floor temperature over a wide area spanning 150°.

Conventional air conditioners monitor the air temperature at the top of a room to control room temperature and fail to take foot-level temperature, that which has the strongest impact on room comfort, into consideration. The "i-see Sensor" monitors the floor temperature and estimates the "felt temperature" (i.e., the temperature felt by people in the room). The airflow speed and temperature are adjusted to prevent over-heating/cooling, thereby eliminating the consumption of excessive electricity.


Cooling
Floor-level temperature is monitored to prevent excessive cooling.
Heating
Floor-level temperature is monitored to determine if heating is needed.

AREA Area Temperature Monitor

The "i-see Sensor" monitors the whole room in sections and directs the airflow to areas of the room where the temperature does not match the temperature setting. (When cooling the room, if the middle of the room is detected to be hotter, more airflow is directed towards it.) This eliminates unnecessary heating /cooling and contributes to lower electricity costs.



Econo Cool Energy-Saving Feature

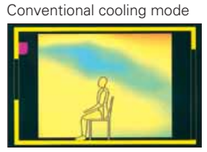
"Econo Cool" is an intelligent temperature control feature that adjusts the amount of air directed towards the body based on the air-outlet temperature. The setting temperature can be raised by as much as 2°C without any loss in comfort, thereby realising a 20% gain in energy efficiency. *(Function only available during manual cooling operation.)*

	Conventional	Econo Cool
Ambient temperature	35°C	35°C
Set temperature	25°C	27°C
Perceived temperature	30°C	**29.3°C**

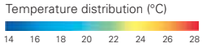
Econo Cool Mode
A comfortable room environment is maintained even when setting the temperature 2°C higher than the conventional cooling mode.

Econo Cool on

Conventional cooling mode



Temperature distribution (°C)



"I Feel" Control

The "I Feel" fuzzy-logic control memorises the most desirable temperature setting. If the "TOO WARM" or "TOO COOL" button on the remote controller is pressed, the system adds the choice to the control memory and adjusts the temperature so that the most comfortable temperature is provided. That temperature setting is used the next time the unit is turned on.

Demand Function (Onsite Adjustment)

The demand function can be activated when the unit is equipped with a commercially available timer or an On/Off switch is added to the CNDM connector (option) on the control board of the outdoor unit. Energy consumption can be reduced up to 100% of the normal consumption according to the signal input from outside.

[Example: Power Inverter Series]
Limit energy consumption by changing the settings of SW7-1 and SW7-2 on the control board of the outdoor unit. The following settings are possible.

SW7-1	SW7-2	Energy consumption
OFF	OFF	0% (STOP)
ON	OFF	50%
OFF	ON	75%

ATTRACTIVE

Pure White

Pure white is adopted for the unit colour; white expressing the essence of cleanliness and easily matching virtually all interior décor.

AUTO VANE Auto Vane

The vane closes automatically when the air conditioner is not running, concealing the air outlet and creating a flat surface that is aesthetically appealing.

AIR QUALITY

Plasma Duo

Units are equipped with a pre-filter and two special filters that perform plasma air cleaning and plasma purification functions (Plasma Duo). The plasma system remove bad odours and bacterial particulates of micron- and nanometre-size from the air.

Air Cleaning Filter

The filter is charged with static electricity, enabling it to attract and capture dust particulates that regular filters don't.

Fresh-air Intake

Indoor air quality is enhanced by the direct intake of fresh exterior air.

Anti-allergy Enzyme Filter

The anti-allergy enzyme filter works to trap allergens such as molds and bacteria and decompose them using enzymes retained in the filter.

High-efficiency Filter

This high-performance filter has a much finer mesh compared to standard filters, and is capable of capturing minute particulates floating in the air that were not previously caught.

Catechin Filter

Catechin is a bioflavonoid by-product of green tea with both antiviral and antioxidant qualities. It also has an excellent deodorising effect, which is why Mitsubishi Electric uses the compound in its air conditioner filters. In addition to improving air quality, it prevents the spreading of bacteria and viruses throughout the room. Easily removed for cleaning and maintenance, when the filter is washed regularly the deodorising action is rated to last more than 10 years.

Oil Mist Filter

The oil mist filter prevents oil mist from penetrating into the inner part of the air conditioner.

Long-life Filter

A special process for the entrapment surface improves the filtering effect, making the maintenance cycle longer than that of units equipped with conventional filters.

Filter Check Signal

Air conditioner operating time is monitored, and the user is notified when filter maintenance is necessary.

AIR DISTRIBUTION

Horizontal Fin

The air outlet vane swings up and down so that the airflow is spread evenly throughout the room.

Vertical Fin

The air outlet fin swings from side to side so that the airflow reaches every part of the room.

High Ceiling Mode

In the case of rooms with high ceilings, the outlet-air volume can be increased to ensure that air is circulated all the way to the floor.

Low Ceiling Mode

If the room has a low ceiling, the airflow volume can be reduced for less draft.

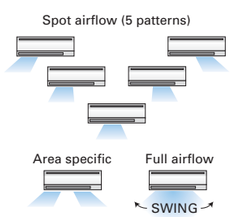
Auto Fan Speed Mode

The airflow speed mode adjusts the fan speed of the indoor unit automatically according to the present room conditions.

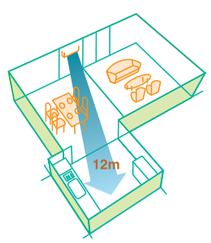
Wide and Long Airflow

The wide and long airflow function is especially beneficial for large spaces, helping to ensure that air is well circulated and reaches every corner of the room.

Wide Airflow
This unique airflow system distributes air horizontally over a wide-ranging 150°in heating mode and 100°in cooling mode. Simply press the Wide Swing icon on the remote controller to select the desired airflow from seven different patterns.



Long Airflow
Use this function to ensure that the airflow circulates to areas far across the room. Press the Long Airflow icon on the remote controller to extend reach up to as far as 12 metres from the unit.



FUNCTIONS

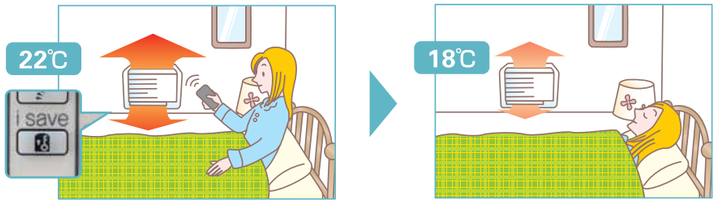
CONVENIENCE

On/Off Operation Timer

Use the remote controller to set the times of turning the air conditioner On/Off.

"i save" Mode

"i save" is a simplified setting function that recalls the preferred (preset) temperature by pressing a single button on the remote controller. Press the same button twice in repetition to immediately return to the previous temperature setting.
Using this function contributes to comfortable waste-free operation, realising the most suitable air conditioning settings and saving on power consumption when, for example, leaving the room or going to bed.



Pictured: MFZ Series remote controller

Auto Changeover

The air conditioner automatically switches between heating and cooling modes to maintain the desired temperature.

Low-temperature Cooling

Intelligent fan speed control in the outdoor unit ensures optimum performance even when the outside temperature is low.

Ampere Limit Adjustment

Dipswitch settings can be used to adjust the maximum electrical current for operation. This function is highly recommended for managing energy costs.

*Maximum capacity is lowered with the use of this function.

Operation Lock

To accommodate specific use applications, cooling or heating operation can be specified when setting the control board of the outdoor unit. A convenient option when a system needs to be configured for exclusive cooling or heating service.

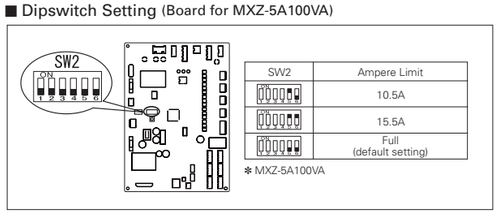
Auto Restart

Especially useful at the time of power outages, the unit turns back on automatically when power is restored.

Low-noise Operation (Outdoor Unit)

System operation can be adjusted to prioritise less noise from the outdoor unit over air conditioning performance.

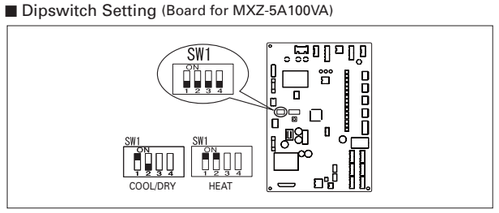
■ Dipswitch Setting (Board for MXZ-5A100VA)



SW2	Ampere Limit
	10.5A
	15.5A
	Full (default setting)

✻ MXZ-5A100VA

■ Dipswitch Setting (Board for MXZ-5A100VA)



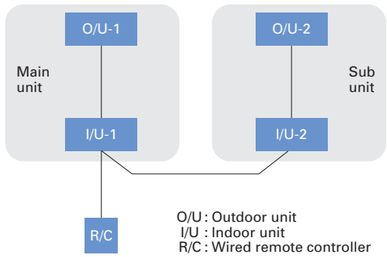
Rotation, Back-up and 2nd Stage Cut-in Functions

(1) Rotation and Back-up Functions

Function Outline

- Main and sub units take turns operating according to a rotation interval setting.
- If one unit malfunctions, the other unit automatically begins operation (Back-up function)

System Image



(2) 2nd Stage Cut-in Function

Function Outline

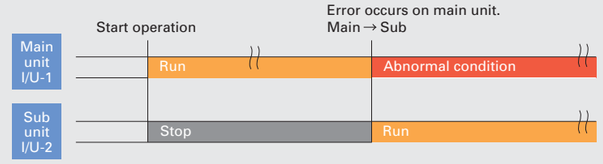
- Number of units operating is based on room temperature and predetermined settings.
- When room temperature rises above the desired setting, the standby unit starts (2-unit operation).
- When the room temperature falls 4°C below the predetermined setting, the standby unit stops (1-unit operation).

System Constraint

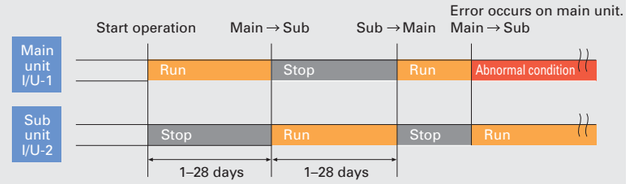
- This function is only available for rotation operation and when the back-up function is in cooling mode.

Operation Pattern

[Back-up function only]



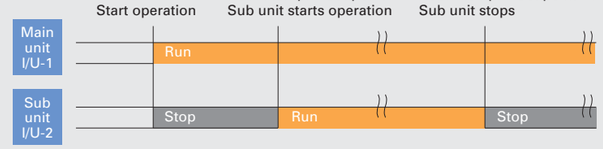
[Rotation function] & [Back-up function]



(Ex: When the request code is "313", each unit operates alternately in daily cycle.)

Operation Pattern

[2nd stage cut-in function]



SYSTEM CONTROL

PAR-21MAA Control

Units are compatible for use with the PAR-21MAA remote controller, which has a variety of management functions including a weekly timer.

System Group Control

The same remote controller is capable of controlling the operational status of up to 16 refrigerant systems.

M-NET Connection

Units can be connected to MELANS system controllers (M-NET controllers) such as the AG-150A.

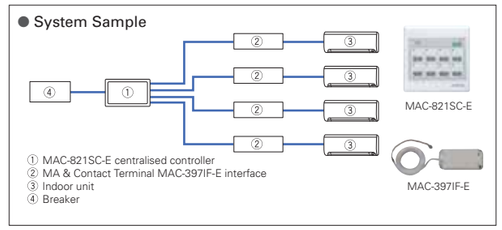
COMPO (Simultaneous Multi-unit Operation)

Multiple indoor units can be connected to a single outdoor unit. (Depending on the unit combination, connection of up to four units is possible; however, all indoor units must operate at the same settings.)

Centralised On/Off Control

Units can be connected to the MAC-821SC-E centralised remote controller, which can control the On/Off function for a maximum of eight indoor units.

● System Sample



MXZ Connection

Connection to the MXZ multi-split outdoor unit is possible.

FUNCTIONS

INSTALLATION

Cleaning-free Pipe Reuse

The application of pipe reuse technology such as Mitsubishi Electric's original hard alkyl benzene oil makes it possible to reuse the same piping, thereby allowing cleaning-free renewal of air conditioning systems that use R22 refrigerant.

- Before exchanging the air conditioning units, cleaning may be necessary if the inner sides of the piping are extremely dirty due to the accumulation of iron particulates generated as the result of friction between moving components in the compressor.
- R410 refrigerant operates at a higher pressure than R22. It is therefore necessary to ensure that the pipe diameter and thickness meet specific standards.

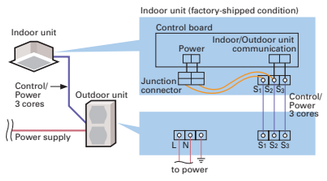
Reuse of Existing Wiring

Wiring recycling problem solved! Compatible with other wiring connection methods*

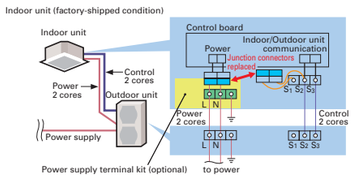
The wiring method has been improved, making it possible to use methods different from that utilized for control and power supply. Units are compatible with the dual harness control line/power line method and the separate power supply method. Using a power-supply terminal kit, wire can be efficiently reused at the time of system renewal regardless of the method the existing system uses.

*Optional. Usage may be limited due to wiring type diameter.

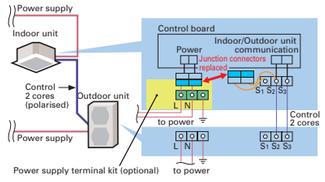
Single Harness Control/Power Line Method (Current method)



Dual Harness Control Line/Power Line Method



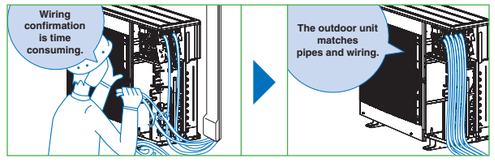
Separate Power Supply Method



Wiring/Piping Correction Function*

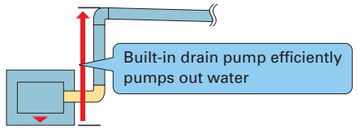
The push of a single button is all that is required to confirm that piping and wiring are properly connected. Corrections are made automatically if a wiring error is detected, eliminating the need for complicated wiring confirmation work when expanding the number of rooms served.

*This function cannot be used when the outdoor temperature is below 0°C. The correction process requires 10–15 minutes, and only works when the unit is set to the Cooling mode.



Drain Pump

A built-in drain pump enables drain piping to be raised.



Flare Connection

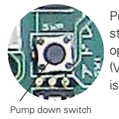
Flare connection to cooling pipe work is possible.

Pump Down Switch

Enables smooth and easy recovery of refrigerant. Simply press the "Pump Down" switch before moving or changing the unit.

Outdoor unit control circuit board

*Photo of Model PUHZ-P100


Pump Down Switch
Push this switch to start/ stop refrigerant recovery operation automatically. (Valve in refrigerant circuit is opened/closed.)
Pump down switch

MAINTENANCE

Quick Clean Body

The cover panel can be quickly removed for washing and the airflow vents can be opened without any special tools, making it easy to clean the inside of the air conditioner in minutes. Periodic cleaning of the air conditioner is recommended to maintain optimum operating efficiency and energy savings.

Open the vents and reach into clean the fan

Exclusive Quick Clean Kit (Optional)

Our exclusive "Quick Clean Kit" can be easily connected to a household vacuum cleaner for quick and easy cleaning of the heat exchanger.*

*It is highly recommended that rubber gloves be worn when cleaning the heat exchanger. Touching it with bare hands may lead to injury.

Mitsubishi Electric's "Quick Clean Body" prevents increases in electricity cost by as much as 30%*

Always clean the heat exchanger, fan, and air vent to ensure proper performance and economical operation.

*Electricity cost comparison of operation between two units at a fixed temperature; one with 8g of dirt on one fan and the other fan clean. Based on in-house data.

Self-diagnostic Function (Check Code Display)

Check codes are displayed on the remote controller or the operation indicator to inform the user of malfunctions detected.

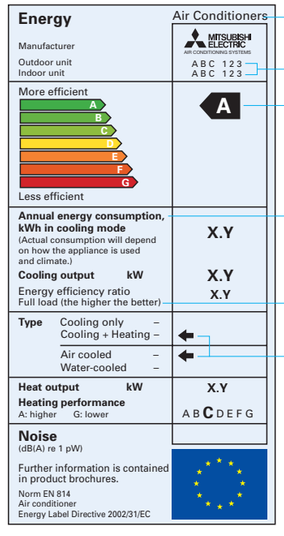
Failure Recall Function

Operation failures are recorded, allowing confirmation when needed.

ENERGY LABELING

In order to conform with the regulations stipulated in the Kyoto Protocol, the European Climate Change Program has been introduced. This program has established a form of "energy labeling" as one method to promote the reduction of CO_2 emissions. The European Commission is confident that this labeling program will contribute to educating companies and the public as to the vital importance of understanding energy consumption, thereby leading consumers to purchase products that are both efficient and environmentally friendly. Each label contains information pertaining to the amount of energy consumed by the unit. Air conditioners with cooling capacities of under 12kW are split into seven categories (A-G). Each category is classified according to energy consumption (i.e. the "Energy Efficiency Ratio") and color coded. Units in Category A are the most efficient, symbolized by a green arrow on the label. Less efficient units are classified in order of efficiency, with the least efficient units belonging to Category G, the label of which is marked with a red arrow. This enables consumers to easily identify the more efficient units when they are comparing brands and units at the time of purchase.

Energy Labeling of Air Conditioners



Product

Model Name

Energy Efficiency Class

Annual Energy Consumption
The Annual Energy Consumption is calculated with the total input power multiplied by an average of 500 hours per year in cooling mode at full load.

Energy Efficiency Ratio
Higher EER means better energy efficiency.

Type of Air Conditioner

Classifications

All air conditioners with the cooling capacity under 12kW are concerned.
Directive defines for each type of product the energy class going from A (more efficient) to G (less efficient).
The energy efficiency class is determined in accordance with the following tables.

Energy Efficiency Class In cooling mode	Energy Efficiency Class In heating mode
A 3.20 < EER	A 3.60 < COP
B 3.20 ≥ EER > 3.00	B 3.60 ≥ COP > 3.40
C 3.00 ≥ EER > 2.80	C 3.40 ≥ COP > 3.20
D 2.80 ≥ EER > 2.60	D 3.20 ≥ COP > 2.80
E 2.60 ≥ EER > 2.40	E 2.80 ≥ COP > 2.60
F 2.40 ≥ EER > 2.20	F 2.60 ≥ COP > 2.40
G 2.20 ≥ EER	G 2.40 ≥ COP

(These classifications are for Split and Multi-Split type air conditioners.)

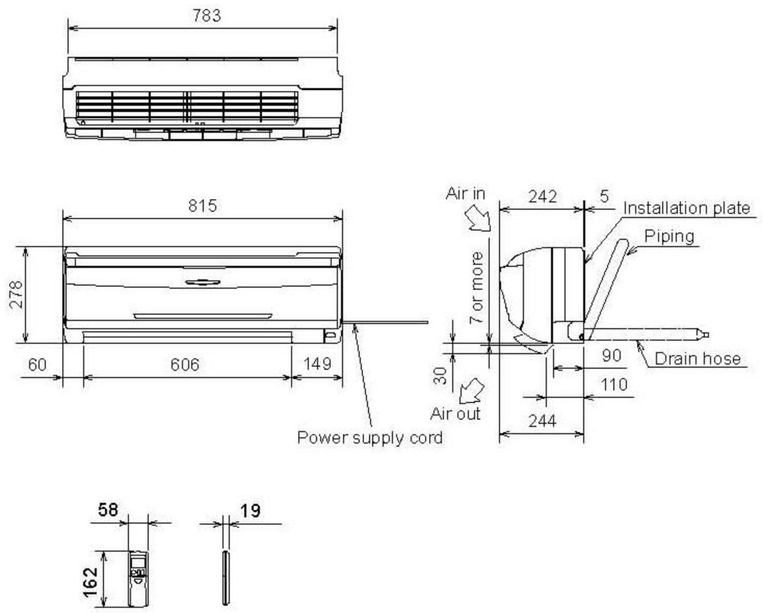
xternal imensions

M SERIES

nit mm

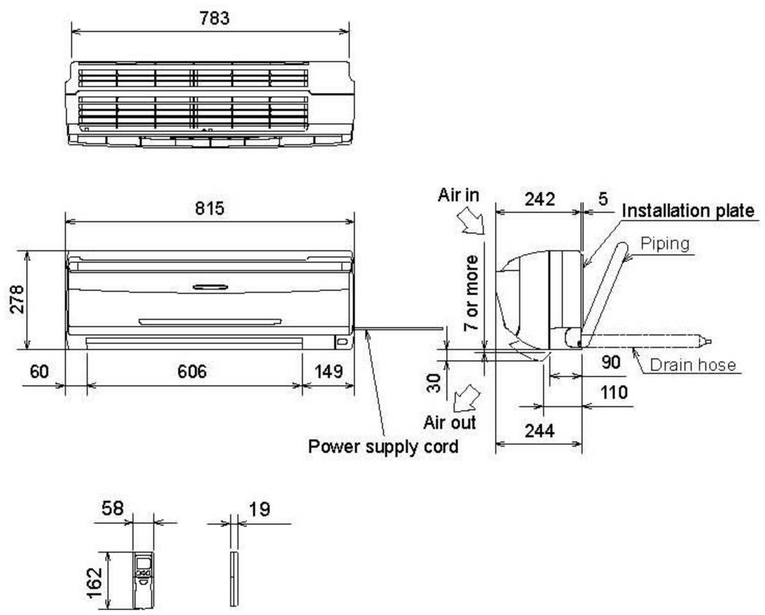
MSC-GE20VB MSC-GE25VB

INDOOR UNIT



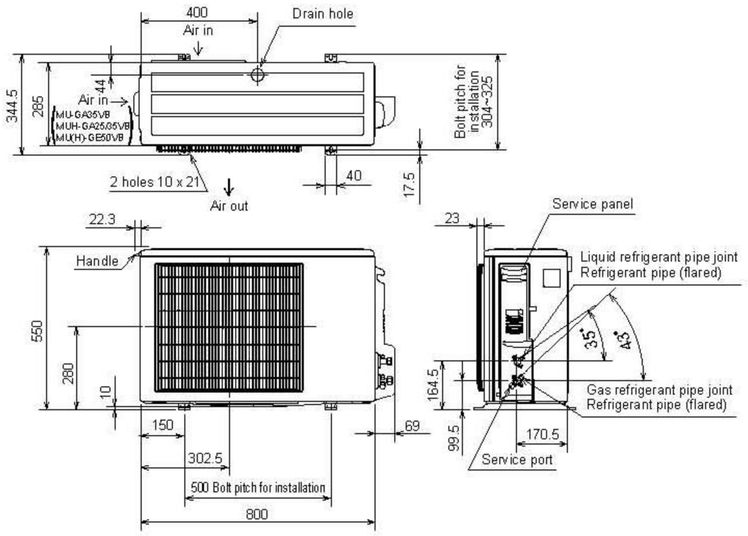
MSC-GE35VB

INDOOR UNIT



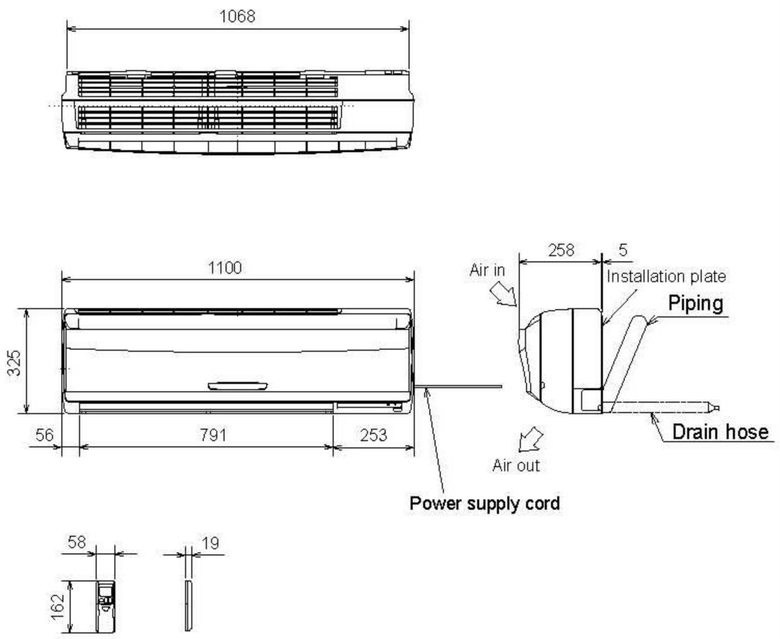
MUH-GA20VB MUH-GA25VB MUH-GA35VB MUH-GE50VB
MU-GA20VB MU-GA25VB MU-GA35VB MU-GE50VB

OUTDOOR UNIT



MSH-GE50VB MSH-GA60VB MSH-GD80VB
MS-GE50VB MS-GA60VB MS-GD80VB

INDOOR UNIT



MUH-GA60VB MUH-GD80VB
MU-GD80VB

OUTDOOR UNIT